

Michael Jerie

Curriculum Vitae

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Work Address

Centre of Policy Studies,
Victoria University,
300 Flinders Street,
Melbourne, Victoria 3000, Australia.

Work ph: (03) 9919 1437

email: michael.jerie@vu.edu.au

Education and qualifications

BSc. (Hons) H1 Mathematics, 1995, La Trobe University.

Majors: Applied mathematics, Pure mathematics.

PhD (Mathematics), 2005, La Trobe University, Victoria.

Thesis: *Raychaudhuri's equation and second-order differential equations.*

Career to date

January 2014 to present	Senior Research Fellow and GEMPACK Developer, Centre of Policy Studies, Victoria University.
June 2010 to January 2014	Senior Research Fellow and GEMPACK Developer, Centre of Policy Studies, Monash University.
June 2006 to June 2010	Research Fellow and GEMPACK Developer, Centre of Policy Studies, Monash University.
February 2005 to June 2006	Lecturer, Department of Mathematics, La Trobe University.
June 2003 to February 2005	Mathematical Programmer, Department of Statistical Science, La Trobe University.
March 2001 to June 2003	Computer Systems Officer, Department of Biochemistry, La Trobe University.
2000 to 2001	Mathematics Tutor, Department of Mathematics, La Trobe University.
1999 to 2000	Research Assistant/Mathematical Programmer, Department of Mathematics, La Trobe University.

Research Interests

My main research area is developing the GEMPACK software package. GEMPACK (General Equilibrium Modelling Package) is a suite of programs for developing and solving economic models. This work includes implementing enhancements to the GEMPACK programming language TABLO, refining GEMPACKS numerical methods for solving systems of equations, and improving the usability of the software.

GEMPACK Documents for release 10.0 (2008)

J. M. Horridge, M. Jerie and K. R. Pearson. *Installing and Using the Source-Code Version of GEMPACK on Windows PCs with Lahey or Intel Fortran*, GEMPACK Document No. GPD-6. Monash University, Clayton, Thirteenth edition, May 2008, pp.42.

J. M. Horridge, M. Jerie and K. R. Pearson. *Installing and Using the Executable-Image Version of GEMPACK on Windows PCs*, GEMPACK Document No. GPD-7. Monash University, Clayton, Tenth edition, May 2008, pp.23.

J. M. Horridge, M. Jerie and K. R. Pearson. *Release 10.0 of GEMPACK: New Features and Changes from Release 9.0, GEMPACK Document No. GPD-9*. Monash University, Clayton, First edition, May 2008, pp.81.

Publications

M. Jerie and G.E. Prince. *Jacobi fields and linear connections for arbitrary second-order ODEs*. J. Geom. Phys. **43** (2002), 351–370.

M. Jerie and G.E. Prince. *A general Raychaudhuri's equation for second-order differential equations*. J. Geom. Phys. **34** (2000), 226–241.

M. Jerie, J.E.R O'Connor and G.E. Prince. *Spacetime symmetries for the Kerr metric*. Classical Quantum Gravity **16** (1999), no. 9, 2885–2887.

M. Jerie, J.E.R O'Connor and G.E. Prince. *Computer algebra determination of symmetries in general relativity*. Comput. Phys. Comm. **115** (1998), no. 2-3, 363–380.

Dixon, P.B., M. Jerie and M. T. Rimmer (2016), *Modern Trade Theory for CGE Modelling: the Armington, Krugman and Melitz Models*, Journal of Global Economic Analysis, vol. 1(1), pp. 1-110.